

March 2000

# FEDERAL BUILDINGS

## Billions Are Needed for Repairs and Alterations



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**G A O**

Accountability \* Integrity \* Reliability

**United States General Accounting Office  
Washington, D.C. 20548**

**General Government Division**

B-283787

March 30, 2000

The Honorable Bob Franks  
Chairman  
The Honorable Bob Wise  
Ranking Democratic Member  
Subcommittee on Economic Development, Public Buildings,  
Hazardous Materials, and Pipeline Transportation  
Committee on Transportation and Infrastructure  
House of Representatives

This report responds to your request for information on the General Services Administration's (GSA) Repairs and Alterations Program. As agreed with your staff, our objectives were to develop information on (1) the extent of repairs and alterations that have been identified at government-owned buildings managed by GSA, (2) factors that impede GSA's ability to satisfy its repair and alteration needs, and (3) GSA's efforts to improve its management of repairs and alterations. The Subcommittee requested this work because of concerns that federal buildings may need costly repairs and alterations to restore them to acceptable quality and safety standards.

Our work was primarily based on our analyses of GSA's repairs and alterations policies and procedures, the data contained in GSA's computerized system that tracks repair and alteration needs, detailed repair and alteration records for 44 buildings with an estimated \$20 million or more of repair and alteration needs, and the historical and projected funding for repair and alteration work. We also held discussions with GSA program officials about the management of repairs and alterations and their efforts to improve operations. To gain some measure of the reliability of GSA's repair and alteration database, we conducted limited testing of the data and made adjustments when we identified errors. We performed our work from August 1999 to March 2000 in accordance with generally accepted government auditing standards. More details about our objectives, scope, and methodology are presented in appendix I.

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## Results in Brief

GSA has struggled over the years to meet the repair and alteration requirements identified at its buildings. Our current work shows that billions of dollars are needed to satisfy the repair and alteration needs at federal buildings; the Federal Buildings Fund (FBF), a revolving fund that finances repair and alteration needs and other capital and operating

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expenditures, is not producing the revenues needed to meet all repair and alteration needs; repairs and alterations program data are problematic; and GSA has not yet fully institutionalized its thinking and planning about how best to strategically respond to its multibillion-dollar repair and alteration needs. This situation is not new. Almost a decade ago—in May 1991—we reported that federal buildings had suffered from years of neglect; and as a result, about \$4 billion was needed to bring some of these buildings up to acceptable quality, health, and safety standards.<sup>1</sup> Our report pointed out that FBF historically had not produced sufficient revenues to finance all needed repairs and alterations at federal buildings. It also identified incomplete and unreliable program data and the lack of a strategic approach to meeting repair and alteration requirements as other factors that impeded GSA's ability to satisfy its repair and alteration needs. In fact, the report made recommendations, which GSA has yet to fully implement, aimed at adopting a more strategic approach for managing repairs and alterations, improving program data, and exploring financing opportunities for repair and alteration needs.

GSA officials recognize that more needs to be done to effectively respond to increasing demands for repairs and alterations. GSA has several initiatives under way that, if fully developed and effectively implemented, could satisfy our previous recommendations, lead to better program oversight, and promote a more strategic approach to meeting repair and alteration requirements. GSA's ongoing initiative to standardize and improve each building's asset business plan—a document that provides a wide array of physical characteristics and financial information—should provide GSA's program managers with consistent and up-to-date information about the repairs and alterations, the critical nature of each work item, how long a work item has been delayed, and the adverse consequences of delaying repair and alteration work. GSA's initiative to develop a comprehensive plan that will identify, in priority order, the repair and alteration work that needs to be funded within a 5-year period should go a long way toward providing key decisionmakers the needed context to fully understand what needs to be done and how best to do it. To help promote the chances for these initiatives to succeed, we are recommending that GSA develop an action plan with specific timeframes that will guide the development and implementation of the initiatives and serve as a baseline for gauging progress and performance.

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<sup>1</sup>Federal Buildings: Actions Needed to Prevent Further Deterioration and Obsolescence (GAO/GGD-91-57, May 13, 1991).

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## Background

As the federal government's real property manager, GSA provides office space for most federal agencies. In this capacity, GSA is responsible for keeping the approximately 1,700 government-owned buildings it manages in good repair to ensure that the value of these assets is preserved and that tenants occupy safe and modern space. GSA identifies building repair and alteration work primarily through building inspections and evaluations done by GSA staff or contract architect-engineering firms. Identified repair and alteration requirements are supposed to be entered into the Inventory Reporting Information System (IRIS), which is GSA's computerized system that tracks repair and alteration needs. Repairs and alterations and other capital and operating expenditures are financed by FBF.

FBF, which is administered by GSA, is a revolving fund authorized and established by the Public Buildings Amendments of 1972. Beginning in 1975, FBF replaced direct appropriations to GSA as the primary means of financing the operating and capital costs associated with federal space. GSA charges federal agencies rent, and the receipts from the rent are deposited in FBF. In addition, Congress may appropriate additional amounts to FBF. Congress exercises control over FBF through the appropriations process that sets annual limits—called obligational authority—on how much of the fund can be expended for various activities. In fiscal year 2000, Congress appropriated about \$599 million in new obligational authority from FBF for repair and alteration work.

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## GSA Data Indicate That Billions of Dollars in Repairs and Alterations Are Needed

GSA data indicate that billions of dollars are needed to satisfy the repair and alteration requirements in the government-owned buildings it manages. If the requirements are not met, buildings could continue to deteriorate and may become functionally obsolete. As of October 1, 1999, GSA's data on the repair and alteration work that needed to be completed at federal buildings included 5,585 items that collectively were estimated to cost about \$4 billion.<sup>2</sup> GSA's data showed that repairs and alterations were needed at 903 buildings, or 54 percent of the 1,682 federal buildings it managed. Furthermore, this inventory is not static. New work items are constantly being identified and added to IRIS, and completed items are deleted.

The following table provides the various cost ranges of work GSA identified at these buildings as well as information on the number, age, and size of buildings that reportedly needed repairs and alterations.

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<sup>2</sup>The estimated amount was calculated using GSA's automated database of repair and alteration work, referred to as IRIS. We found that IRIS contained the best data that were available for estimating total needs; however, we adjusted these data in cases where limited testing showed inaccuracies and incompleteness. These data problems are discussed later in the text.

**Table 1: Cost Ranges of Repair and Alteration Work and Descriptive Building Information as of Sept. 30, 1999**

Dollar amount of repair and alteration work in inventory	Number of buildings	Average age (years) <sup>a</sup>	Median gross square feet <sup>b</sup> (-000)
\$500,000 or less	446	51	21.7
\$500,001 to \$1,000,000	120	57	76.2
\$1,000,001 to \$2,000,000	100	52	139.0
\$2,000,001 to \$5,000,000	75	58	184.0
\$5,000,001 to \$10,000,000	66	51	202.5
\$10,000,001 to \$20,000,000	42	46	404.0
\$20,000,001 or more	44	49	722.9
Subtotal of buildings with work items and cost estimates <sup>c</sup>	893	52	74.3
Buildings with work items but no cost estimates	10	43	18.0
<b>Total buildings with work items</b>	<b>903</b>	<b>52</b>	<b>74.0</b>

Note: Data in this table came from IRIS and were adjusted for accuracy when our limited testing of detailed records identified errors.

<sup>a</sup>GSA's database did not reflect the age of 76 buildings included in our analysis.

<sup>b</sup>GSA's database did not show the square footage for eight buildings included in our analysis.

<sup>c</sup>Fifty-seven of these buildings had 84 work items that did not identify associated costs.

Source: GAO analysis of GSA data.

It should be noted that the amount and types of repairs and alterations needed varied from building to building. In fact, GSA data showed that 779 of its buildings did not have repair and alteration work items in inventory—that is, no work items were identified as needing funding. In addition, as table 1 illustrates, the repair and alteration work identified at almost one-half of the 903 buildings was estimated to cost less than \$500,000 per building. Our analysis showed that many of these 446 buildings and the 779 without needs were relatively small office buildings and border stations. On the other hand, 44 buildings needed repairs and alterations that were estimated to cost more than \$20 million per building. Furthermore, these buildings collectively accounted for almost 60 percent of the nearly \$4 billion estimated as needed to fund all identified repairs and alterations. Also, the buildings with the highest dollar repair and alteration needs were typically large office buildings or courthouses.

Our analysis of the detailed information obtained on the conditions of these 44 buildings showed that their average age was 49 years. Although the buildings are located throughout the country, 16 of them are in the Washington, D.C., area. Also, 7 of the 44 are included on the National Historic Register. The amount of repair and alteration work needed on these 44 buildings totaled about \$2.4 billion, ranging from approximately \$187 million at the Dwight D. Eisenhower Building in Washington, D.C., to over \$21 million at a federal building and courthouse located in San Diego,

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CA. The types of repairs and alterations needed varied. However, they typically involved repairs to major building components, such as electrical, plumbing, heating, ventilation and air conditioning systems; fire alarm and/or sprinkler systems; or other fire and life safety items. The location, total amount of repairs and alterations needed at each building, and other details about these 44 buildings are shown in appendix II.

We also found that some of the repair and alteration work needed on the 44 buildings was apparently identified years ago, but for various reasons this work had not yet been performed. Although GSA does not have a goal of how long it should take to do repairs, and its database did not routinely track how long repairs and alterations have been delayed or held in inventory, our analysis of the available data suggests that some of this work was identified more than 5 years ago. Our analysis of the detailed records for the 44 buildings showed that a total of 674 work items were still in inventory. Of these 674 items, GSA's database did not contain a date indicating when the work was identified on 156 items. Of the remaining 518 work items, we found that 218 of them were identified more than 5 years ago, and 49 of these more than 10 years ago. We discussed this situation with GSA officials, who told us that some repair and alteration work remains in inventory or unaccomplished for years because it is not deemed important enough to compete for scarce funding.

The issue of delayed repair and alteration work is not new. In fact, a backlog of this work existed when we last reviewed GSA's repair and alteration program in 1991. At that time, we found that more than one-third of the 25 buildings included in our analysis had major repair and alteration needs that had been delayed for 3 to 15 years. We cited the Pentagon as a classic example of disinvestment in federal facilities because repairs and alterations at this building had been delayed for 10 years. As a result, GSA estimated that a billion-dollar renovation was needed to prevent further deterioration. We also reported that other buildings had been neglected, although not as badly as the Pentagon; and that at least \$3 billion in identified repairs and alterations were needed to bring these buildings up to acceptable quality, health, and safety standards.

More recently, the National Research Council issued a report that described the physical condition of the federal facilities portfolio as deteriorating.<sup>3</sup> This report concluded that one of the reasons for this deterioration was the lack of information to justify maintenance and repair

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<sup>3</sup>Stewardship of Federal Facilities: A Proactive Strategy for Managing the Nation's Public Assets, National Research Council, 1998.

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budgets. The report went on to say that in the federal budget and operations environment, facilities maintenance and repair is often deemed a low priority because facility managers do not have the information they need to present their cases for funding to senior managers and public officials. Furthermore, the report said that because the deterioration of facilities occurs over a long period of time, it may appear to senior executives and public officials that the maintenance and repair of facilities can always be delayed 1 more year. The report went on to say that the fact of the matter is that continuously delaying maintenance and repairs to facilities can result in major disruptions in service and business and costly and serious health and safety consequences.

GSA officials said they recognize that the physical condition of many federal buildings is far from ideal, that a significant inventory of repair and alteration work exists, and that some buildings cannot support 21<sup>st</sup> century operations. These officials stress, however, that federal buildings have not been and are not being neglected and that examples of serious deterioration of these buildings are few and far between. GSA officials also said that given the age of their inventory and the limited resources available to fund repairs and alterations, they take pride in knowing that the agency has kept many buildings operational far beyond their normal life expectancy.

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## Several Factors Impede GSA's Ability to Satisfy Repair and Alteration Requirements

Funding limitations, inadequate program data, and the lack of a strategic approach for meeting repair and alteration requirements are three factors that impede GSA's ability to satisfy the multibillion-dollar repair and alteration needs at its buildings. Despite a lengthy discussion of these factors in our 1991 report, they continue to exist. In that report, we made several recommendations aimed at promoting more informed congressional decisionmaking and preventing federal buildings from becoming deteriorated and functionally obsolete.

Specifically, we recommended that the Administrator of GSA annually develop and communicate to the Office of Management and Budget (OMB) and Congress a comprehensive plan that (1) identifies total repair and alteration requirements in federally owned buildings and their estimated cost; (2) assesses the short-term and long-term economic and operational implications of the requirements in each building; and (3) proposes a strategy, action plan, and funding levels to repair or modernize the most severely deteriorated, functionally obsolete, and unsafe buildings. We recognized that before such a plan can be developed, GSA would, among other things, need to establish appropriate management controls to help ensure that (1) all identified building repair and alteration needs are



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included in the computerized inventory, assigned priorities, and properly costed; and (2) needs that have already been deferred for 2 or more years are identified, tracked, and coordinated with the affected tenant agencies.

The report went on to say that once GSA developed and submitted this plan, the Administrator should explore with Congress and OMB how to finance the needed building repairs and alterations. A review of GSA's audit resolution file on our 1991 report showed that GSA made some attempts to respond to these recommendations, such as developing policies on building inspection reports and establishing a 5-year plan requirement for identifying building reinvestment needs. The file also showed that GSA completed an annual 5-year plan of prospectus-level projects,<sup>4</sup> but it was not shared with congressional committees. According to GSA repair and alteration officials, the 5-year plan initiative waned; but, as discussed later, GSA has efforts under way to develop such a plan. Our overall analysis showed that GSA's initiatives fell short of responding to our recommendations, and more can be done.

GSA officials continue to cite funding limitations as the major reason why all repairs and alterations are not getting done. Over the years, FBF has not produced sufficient resources to fund all identified repairs and alterations and at the same time cover the day-to-day operating costs of federal buildings and provide all of the funding needed for the construction of new buildings. According to GSA, the funding deficiency is exacerbated by the increased demand for repairs and alterations associated with aging buildings. For example, demands on buildings' electrical systems have risen due to new office technology, and there is a greater demand for more stringent health and safety protection.

Our analysis of the funding situation showed that during the 6-year period from fiscal year 1994 through 1999, GSA received, on average, about \$580 million out of FBF each year to complete repairs and alterations at its buildings. During these years, many repairs and alterations were made. However, at the same time, new requirements were identified and added to GSA's inventory of repair and alteration work. Despite averaging about \$580 million a year for making repairs and alterations, GSA data showed that at the end of fiscal year 1999, there was still about \$4 billion in identified work.

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<sup>4</sup> A prospectus provides detailed information about the size, cost, and location of the proposed work; justification for proceeding with design and construction; and economic analyses of the alternatives to doing the requested repairs and alterations.

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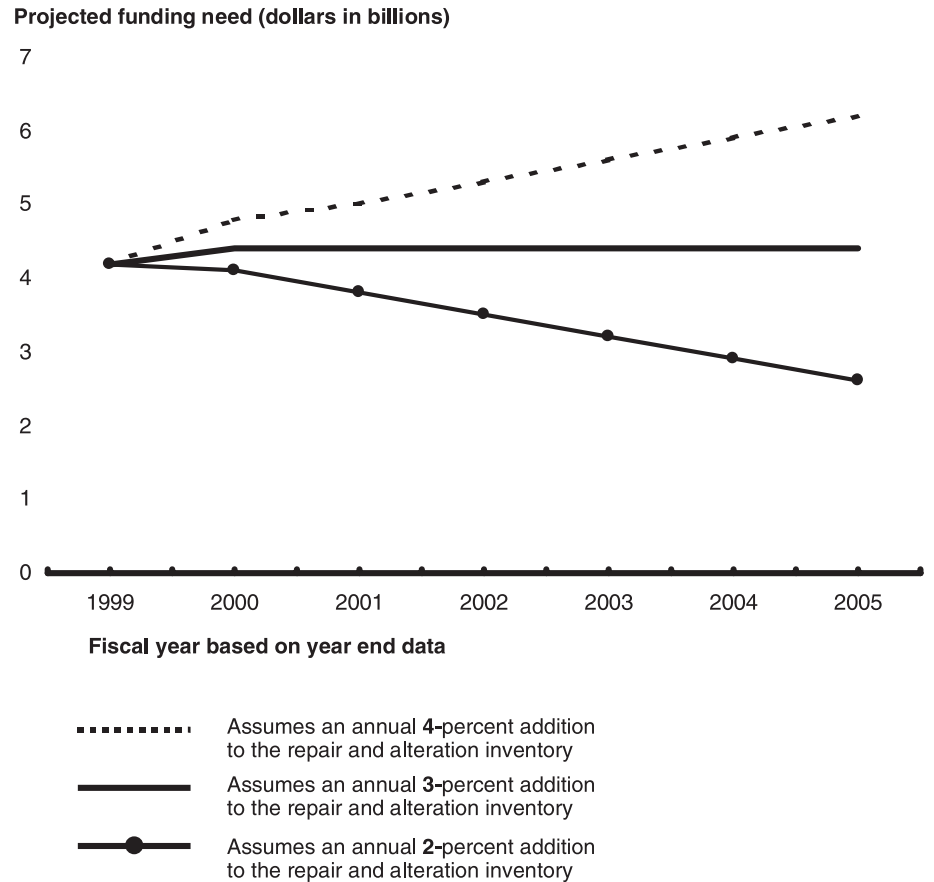
In fiscal year 2000, Congress appropriated about \$599 million in new obligational authority from FBF for repairs and alterations. GSA officials said they intended to request \$900 million annually in new obligational authority for this program for fiscal year 2001 through fiscal year 2005.<sup>5</sup> GSA officials told us that this significant increase in funding may be possible because of savings obtained from improved operations at federal buildings and additional revenues resulting from leasing previously unoccupied space. The officials also said that they do not know the amount of new repair and alteration work that will be added to the inventory in future years. However, they said that it was reasonable to assume that each year the dollar amount of new repairs and alterations that will be needed could range from 2 to 4 percent of the estimated \$30 billion aggregate replacement cost of GSA's portfolio. To estimate the cost of the work that will exist at the end of the next 6 years, we used these assumptions, and the \$599 million in obligational authority for fiscal year 2000, the \$900 million projected funding for fiscal years 2001 to 2005, and the \$4 billion inventory of repair and alteration work that existed at the beginning of fiscal year 2000.<sup>6</sup> We adjusted the \$4 billion inventory to reflect \$370 million of unobligated funds in FBF available to GSA at the beginning of fiscal year 2000, \$305 million that will be needed from FBF for repair and alteration work at other facilities like leased buildings, and \$457 million that will be needed for unfunded work at projects already under way. As illustrated in figure 1, even under the most conservative estimate of new work, which is 2 percent added to the inventory annually, GSA would face billions in repair and alteration needs during each of the next 6 years. Moreover, these needs are estimated at about \$2.6 billion at the end of 2005.

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<sup>5</sup>Although GSA's goal was \$900 million in new obligational authority for funding repairs and alterations for each year, the President's fiscal year 2001 budget request included only \$721 million for repair and alteration work.

<sup>6</sup>The \$4 billion total does not include the \$183.5 million needed to make repairs and alterations at the Agriculture South Building. It is anticipated that this work will continue to be funded through direct appropriations to the Department of Agriculture rather than through FBF.

**Figure 1: Estimated Annual Repair and Alteration Needs Under Three Scenarios**



Source: GAO analysis of GSA data.

We recognize that funding limitations could be a major reason why needed repairs and alterations are not getting done. However, our work shows that GSA has not done all it could to address the building disinvestment problem. For example, GSA’s repair and alteration program data are problematic, as they were when we reported on this issue in 1991. GSA’s current computerized database of repair and alteration work items—IRIS—contains inaccurate and incomplete information. Although we did not systematically test IRIS, we found instances where (1) certain GSA regions did not include all repair and alteration requirements in the database; (2) major repairs and alterations were identified as still being in inventory when, in fact, they had already moved into design, construction, or had been completed; (3) work items were included in the inventory when they should have been deleted because, for example, they were no longer needed, had become part of another project, or were duplicates of

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other work items; and (4) construction cost estimates were not always current. Also, we found that IRIS listed some buildings as needing major repairs and alterations, but the estimated costs of these work items were not included. Finally, we identified instances where important facts about a building, such as its age or historical significance, were not included in GSA's database.

We also found that data currently available on repairs and alterations do not allow program managers to easily determine the length of time that work has been in inventory, the criticality of each work item, or the possible adverse consequences associated with delaying repair and alteration work. As previously mentioned, many work items identified as being in the repair and alteration inventory for the 44 buildings we examined did not reflect the date when the work item was identified. We also noted that in most of the cases we examined, the explanation contained in the database on why the repair and alteration work was needed was vague, did not reference the criticality of the work, and did not contain information on the possible adverse consequences associated with delaying repairs and alterations.

We believe that reliable and complete information about identified repairs and alterations is essential for effective management and oversight of program activities. Without such information, it is difficult for the program managers to (1) quantify the total amount of repair and alteration needs, (2) effectively target the most critical needs and set priorities within and among the 11 GSA regions, and (3) justify to OMB and Congress the need for additional repair and alteration funding. Simply stated, inadequate program information does not permit informed decisionmaking. GSA database officials recognize that their data have quality problems and said they have been working to improve them.

We also noted that GSA has not made much progress in developing a strategic approach to meet its repair and alteration requirements. This was a major issue in our 1991 report, which discussed, in some detail, the shortcomings associated with managing repair and alteration requirements on a project-by-project basis and GSA's need for a comprehensive, long-term strategy for effectively meeting its building repairs and alteration needs.

GSA continues to operate its repair and alteration program much like it did in 1991. GSA decides, in conjunction with the annual budget cycle, which repair and alteration needs should be addressed during the next fiscal year. For those repairs and alterations estimated to cost less than a

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statutorily prescribed threshold, which was \$1.93 million in fiscal year 2000, each of GSA's 11 regions decides which work items will be funded. This work is completed under the general guidance and annual funding levels approved by GSA headquarters. On the other hand, when repairs and alterations are estimated to cost more than the threshold amount, GSA must prepare a project proposal called a prospectus.<sup>7</sup> Using input from its regions and the professional judgment of its headquarters' staff, GSA develops an annual list of prospectus-level projects and submits the list to OMB and the Senate and House committees responsible for public works.

OMB and Congress, using the list and the individual prospectuses, must then decide which projects to fund in a given year, without the benefit of a comprehensive framework of GSA's total building repair and alteration needs. They must operate this way because GSA does not have a comprehensive plan that (1) identifies its total repair and alteration needs and corresponding funding requirements, (2) establishes the relative benefits or priorities of all competing projects, and (3) proposes a strategy and the funding needed to repair or modernize its most seriously deteriorated buildings. With such a plan, Congress and OMB would be in a better position to fully understand GSA's total repair and alteration needs and associated funding requirements, as well as the cost-benefit implications of making or not making needed repairs and alterations. The information in the plan would provide the needed context for Congress and OMB to better understand the magnitude of the problem and permit decisionmakers to make (1) more informed decisions about annual funding levels and which particular projects to fund and (2) more knowledgeable trade-offs when allocating scarce resources among competing projects. Finally, GSA would be in a better position to target limited resources to buildings with the greatest needs.

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## GSA Plans Improvements in its Oversight of Building Repairs and Alterations

GSA has yet to fully implement the recommendations in our 1991 report but is moving in the right direction. GSA officials recognize that more should be done to improve the management and oversight of building repairs and alterations. To this end, GSA has several initiatives under way that, if fully developed and implemented, could satisfy our previous recommendations. These initiatives could also lead to better program oversight and a more strategic approach to managing repair and alteration needs.

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<sup>7</sup> A prospectus is not required for projects costing more than the threshold amount if the work is considered recurring, such as a major interior painting project.

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GSA's primary initiatives involve standardizing and improving the asset business plan<sup>8</sup> that is prepared for each building in its portfolio and developing a comprehensive plan that identifies, in priority order, all prospectus-level repair and alteration work that needs to be funded during a 5-year period. In addition, GSA has a strategy aimed at increasing revenues in FBF, which could make more funds available for repairs and alterations. GSA has also included specific repair and alteration goals in its annual performance plan.

For a number of years, GSA has required that an asset business plan be prepared for all buildings included in its portfolio. But only recently has it taken steps to help ensure that these plans are consistently prepared, accessible to all program managers, and used to develop standardized management reports about the repair and alteration requirements at all of GSA's buildings. During the fall of 1999, GSA established a standardized format and standard data elements that must be included in all asset business plans. Prior to this date, each of the 11 regional offices had significant discretion in determining the format of its asset business plans, the detailed information contained in its plans, and how these plans would be used in determining which repairs and alterations would be funded. Therefore, the asset business plan of the past did not lend itself to collection and comparison of information about the building repairs and alterations within a region, let alone among the 11 regions.

According to GSA officials, when the new asset business plans are fully implemented, they are to identify all repair and alteration needs over the entire life cycle of a building. With this information, GSA managers should be in a better position to determine the critical nature of each work item, how long each work item has been delayed, and the adverse consequences of delaying repair and alteration work. The plans are to be on an automated nationwide network and therefore, readily available for all program managers to use. The asset business plans are also to directly feed into and provide key data for GSA's 5-year repair and alteration plan.

In conjunction with the asset business plan, GSA also has an ongoing effort aimed at developing a 5-year repair and alteration plan that is to include all prospectus-level work in priority order and the estimated funding needed to complete this work. According to GSA Portfolio Management officials, this plan will be updated on an annual basis, and it may also include an

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<sup>8</sup>An asset business plan provides a wide array of information related to a building's physical characteristics, the rent revenues and expenses associated with operating the building, and the repair and alteration requirements that have been identified.

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estimate of the nonprospectus-level funding that will be allocated each year to GSA's regions. The officials told us that the exact format and content of the 5-year plan are still evolving and are somewhat dependent on the development of the asset business plans. The asset business plans will ultimately provide much of the information that will become part of the 5-year plan.

According to GSA officials, the 5-year repair and alteration plan is currently intended to be used as an internal document to communicate and share total repair and alteration requirements among program managers in headquarters and the regions. GSA program officials said they envision that the plan will identify and prioritize the most critically needed repair and alteration projects throughout GSA's building inventory. With this information, program officials should be able to more easily target the buildings with the greatest needs, be in a better position to allocate scarce resources, and monitor progress in reducing the inventory of major repair and alteration work. These officials told us that they prefer to call the 5-year plan a 3- to 5-year investment outlook. They told us that the plan will be more than a listing of projects and is intended to be an overall strategy document that will change annually so that it will best address current and future repair and alteration needs.

GSA officials said that they would be willing to share the 5-year plan with OMB officials and congressional oversight committees because the plan could be a useful oversight tool. They realize that the plan would provide OMB and congressional officials a broader context on the magnitude of GSA's repair and alteration needs and a better understanding of the trade-offs involved in funding or not funding requested projects.

To successfully implement the initiatives discussed above, GSA officials realize that they need consistent, accurate, and complete information on all repair and alteration requirements. They said that the current computer system—IRIS—is capable of providing reliable data. However, they recognize that the quality and consistency of IRIS data need improvement. They also recognize that other tools are needed to provide more consistent cost estimates and updates and comparable priorities among regions. According to these officials, the IRIS system was changed in July 1999 to record when new work requirements were entered into the inventory. They also said that they have other actions under way and planned that will establish standards for and measures of data accuracy in IRIS and other Public Buildings Service systems. They went on to say that GSA is also testing software packages that are supposed to (1) consistently record and track the status of each identified repair and alteration work item, (2)

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develop more accurate cost estimates for work items, and (3) assist in establishing priorities for identified repairs and alterations.

GSA officials estimate that the asset business plan and 5-year repair and alteration plan initiatives should be completed within the next 2 years. However, they do not have an action plan with specific time frames that could guide their development and implementation and better promote their chances of success. Such a plan could, among other things, clearly lay out expectations, serve as a baseline to gauge progress and performance, and be used to hold project managers accountable for results.

In addition to these ongoing initiatives, GSA has developed a strategy that is aimed at producing more revenues for FBF to help respond to its multibillion-dollar repair and alteration needs. Specifically, GSA program officials give priority to those repair and alteration projects that have the greatest potential to increase the inventory, desirability, and value of rentable space. When previously vacant space is rented, additional revenues are generated for FBF, making more funds available for new obligational authority to be provided by Congress for repairs and alterations. GSA officials also said they are exploring other ways to increase funds in FBF. They said that one way is to try to get approval to retain revenues from sales of assets no longer needed by the government. They said they are also considering exploring whether Congress would be receptive to directly appropriating funds for the repairs and alterations program and have GSA repay these appropriations from additional rent revenues generated from completed projects.

Finally, GSA has made its repair and alteration program a part of its annual performance plan. Specifically, GSA's fiscal year 1999/2000 plan included three performance goals: (1) complete all repairs and alterations on time, (2) minimize cost escalation on repairs and alterations, and (3) meet client agency space needs at the best value to the client and taxpayer. Although these goals do not specifically address the issues discussed in this report, they recognize the importance of effective repair and alteration program management and the need to be accountable for producing measurable results. Given this, GSA's annual performance plan process could be a vehicle for discussing the merits of developing specific goals related to these issues.

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## Conclusions

GSA data indicate that billions of dollars are needed to satisfy the repair and alteration needs in government-owned buildings that it manages. These repairs and alterations are needed so that buildings can better meet quality, health, and safety standards. If this work is not done, buildings



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could continue to deteriorate and become functionally obsolete. Funding limitations, inadequate program data, and the lack of a strategic approach to meeting repair and alteration needs impede GSA's ability to satisfy its multibillion-dollar repair and alteration needs and respond to future demands. This is not a new message. The situation today is not much different than it was in 1991, when we last reported on this issue. Hopefully, things will change.

GSA recognizes that more needs to be done to improve the management and oversight of its repairs and alterations program. Given this, GSA has several initiatives under way that are aimed at increasing funding, improving program data, and developing a more strategic approach to meeting its repair and alteration needs. If these initiatives are fully developed and effectively implemented, they could satisfy our previous recommendations, improve program oversight, and promote a more strategic approach to resolving the building disinvestment problem. GSA officials estimate that these initiatives will be completed within the next 2 years. However, they do not have an action plan with specific timeframes that could guide their development and implementation. Such a plan could better promote the chances for these initiatives to succeed.

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## Recommendation

We recommend that the Administrator of GSA develop an action plan, with time frames, that will (1) guide the development and implementation of its initiatives and (2) serve as a baseline for gauging progress and performance.

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## Agency Comments and Our Evaluation

On March 14, 2000, the Assistant Commissioners for the Office of Portfolio Management and the Office of Business Performance and other program officials from GSA's Public Buildings Service provided us with oral comments. They generally agreed with the message and recommendation in this report. These officials said that GSA is making progress in institutionalizing its thinking and planning about how best to strategically respond to its multibillion-dollar repair and alteration needs. According to these officials, their efforts to develop and implement the initiatives discussed in this report and GSA's use of capital allocation methods to validate and prioritize its projects are indicators of such progress. They pointed out, however, that even if they are successful in developing and implementing the current initiatives to improve the repairs and alterations program, additional resources will be needed to meet the overall repair and alteration needs in the inventory.

We commend GSA for its efforts. However, it is important to recognize that if GSA is to have a more strategic approach to meet its repair and

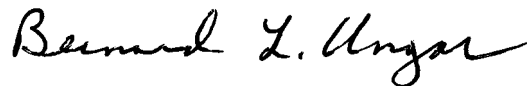
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alteration needs, it must effectively develop and implement its current initiatives. As previously mentioned, GSA officials estimate that the asset business plan and 5-year repair and alteration plan initiatives should be completed within the next 2 years. Given this, it is too early to tell how successful they will be in providing a more strategic approach to meeting repair and alteration needs. These officials also provided technical comments, which we incorporated where appropriate, to provide further clarity and context to some of the issues discussed.

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As agreed with your offices, unless you publicly announce the contents of this report earlier, we will not distribute it until 15 days from its issue date. At that time, we will send copies of the report to the Chairmen and Ranking Minority Members of committees with jurisdiction over GSA; the Honorable David J. Barram, Administrator, GSA; and the Honorable Jacob J. Lew, Director, OMB. We will also send copies to interested congressional committees and make copies available to others on request.

Major contributors to this report were Gerald Stankosky, James G. Cooksey, William Dowdal, Martin DeAlteriis, Joshua Bartzen, and Thomas Baril. If you or your staff have any questions, please contact me on (202) 512-8387 or [ungarb.ggd@gao.gov](mailto:ungarb.ggd@gao.gov).



Bernard L. Ungar  
Director, Government Business  
Operations Issues

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## Abbreviations

FBF	Federal Buildings Fund
GSA	General Services Administration
IRIS	Inventory Reporting Information System
OMB	Office of Management and Budget
PBS	Public Buildings Service

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# Objectives, Scope, and Methodology

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Our objectives were to develop information on (1) the extent of repairs and alterations that have been identified at government-owned buildings managed by the General Services Administration (GSA), (2) factors that impede GSA's ability to satisfy repair and alteration needs, and (3) GSA's efforts to improve its management of repairs and alterations at federal buildings. We did most of our work at GSA's Public Buildings Service (PBS) headquarters in Washington, D.C., and at 2 of GSA's 11 regions—the Greater Southwest Region located in Fort Worth, TX, and National Capital Region located in Washington, D.C. In addition, we interviewed GSA program officials responsible for identifying and managing repairs and alterations in the remaining nine regional offices.

To meet our first objective, we reviewed GSA's policy and procedures applicable to the repairs and alterations program and interviewed officials responsible for identifying and obtaining funding for repair and alteration work.<sup>1</sup> We then obtained and analyzed information contained in the Inventory Reporting Information System (IRIS)—a GSA computerized database of information on building repairs and alterations. According to GSA database managers, the data we used were representative of the repair and alteration needs contained in IRIS as of October 1, 1999. Using IRIS, we identified the total number of and corresponding dollar estimates for the repairs and alterations identified as being in inventory for the 1,682 federal buildings managed by GSA.<sup>2</sup> According to GSA officials, repairs and alterations that are in inventory have not yet been funded. GSA database managers said that estimated design, management, and inspection costs associated with doing repair and alteration work are generally included in the construction cost estimate. However, there are cases when regions would enter the design, management, and inspection costs separately in IRIS. The overall estimate of repair and alteration needs was developed on the basis of the construction cost estimate because GSA did not provide us with the estimated design, management, and inspection costs that were identified separately. We also used IRIS to obtain other information, such as the types of repairs and alterations and the name and location of the buildings needing repairs and alterations.

We interviewed GSA headquarters and regional officials about the process involved in identifying and recording repair and alteration needs. These

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<sup>1</sup> GSA's repairs and alterations program does not include minor repairs and maintenance, which typically includes work that costs less than \$10,000 and is funded out of operating revenues.

<sup>2</sup> IRIS does not report cost estimates in constant dollars (for example, all cost estimates are expressed in terms of fiscal year 2000 dollars). We could not convert these estimates to constant dollars because IRIS does not provide needed information—e.g., the year in which the cost estimate was made.

officials told us that regional staffs are responsible for identifying and entering information about repairs and alterations into IRIS. The regions are also responsible for developing and implementing verification procedures to ensure that the data entered into IRIS are accurate and complete. According to GSA officials, these procedures vary from region to region, and their overall effectiveness has not been assessed. These officials also recognize that there are data quality problems with IRIS. However, they believe that the information contained in IRIS is the best available to identify repair and alteration work at federal buildings and estimate the cost of completing these work items.

After analyzing information on the dollar amounts of the repairs and alterations shown as being in inventory at the end of fiscal year 1999, we selected 44 buildings with the highest dollar cost of work for detailed review. Each of these buildings needed repairs and alterations that were estimated to cost \$20 million or more. We obtained and analyzed detailed IRIS reports that contained specific information about the repairs and alterations at each of these buildings. We did this analysis to document the types of work that needed to be completed at these buildings; the types and locations of the buildings; and, to the extent possible with IRIS data, the length of time that the repairs and alterations had been delayed. The 44 buildings represented less than 3 percent of the federal buildings that needed repair and alteration work at the time of our review. However, they accounted for about 60 percent of the nearly \$4 billion in total identified work.

To accomplish our second objective, we examined historical and projected repair and alteration funding and GSA's processes for managing and overseeing the repairs and alterations program. We reviewed GSA's appropriations acts and obtained a general understanding of how the Federal Buildings Fund (FBF) operates. We then determined the total revenues available in FBF and the amounts of money that were allocated to GSA's repair and alteration program during the 7-year period covering 1994 through 2000. We had the Chief Financial Officer of PBS prepare an analysis projecting FBF revenues and the amounts of funding that will likely be available to pay for repairs and alterations over the next 5 fiscal years—2001 through 2005.

We also consulted with PBS officials on the best way to estimate the dollar amount of new repair and alteration work that will enter the inventory during the next 5 years. PBS officials told us that they did not know the amount of work that will be added to the inventory, and they do not have a methodology that is routinely used to estimate the amount of new repair

and alteration work added to the inventory of existing work. However, they said that it would be reasonable to assume that each year the dollar value of new repair and alteration work will equal 2 to 4 percent of the aggregate current replacement value of GSA's portfolio.<sup>3</sup> The PBS officials pointed out that the National Research Council's recent report on facilities management cited the 2- to 4-percent guideline as being widely quoted in the facilities management literature. Therefore, the PBS officials agreed that it is a reasonable benchmark for estimating new repair and alteration work.

Once we had obtained the projected funding amounts for making repairs and alterations, determined the total amount of work in inventory that still needed funding, and excluded the estimated cost for repair and alteration work at one building that is expected to continue to be funded with direct appropriations to the agency rather than through FBF, we calculated the amount of work that will likely still exist at the end of each of the next 6 fiscal years.

We developed our understanding of how GSA manages its building repairs and alterations by examining appropriate policies and procedures and interviewing program officials at headquarters in Washington and in each of the 11 regions. We focused our efforts on determining how GSA had changed its repairs and alterations program since we last reviewed the program in 1991. Specifically, we assessed GSA's efforts to implement the recommendations we made in 1991 aimed at improving data quality and adopting a more strategic approach for meeting repair and alteration requirements.<sup>4</sup>

To accomplish our third objective, we interviewed GSA officials about ongoing or planned initiatives directed at improving the management and oversight of building repairs and alterations. After determining the specific efforts that were under way at the time of our fieldwork, we met with GSA officials to discuss each initiative and obtained available documentation. We discussed with GSA officials how each of its efforts is expected to improve the management and oversight of repairs and alterations and the projected dates for implementing the ongoing efforts.

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<sup>3</sup> When we did our work, GSA estimated the current replacement value at \$30 billion, but the fiscal year 2001 budget justification shows the estimate increased to \$33 billion.

<sup>4</sup> Federal Buildings: Actions Needed to Prevent Further Deterioration and Obsolescence (GAO/GGD-91-57, May 13, 1991).



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We did our work between August 1999 and March 2000 in accordance with generally accepted government auditing standards. We did not complete a reliability assessment of all data contained in IRIS; but we did, in coordination with GSA officials, conduct limited testing of the accuracy and reasonableness of these data. We did not independently assess the reasonableness of GSA's cost estimates. We also asked staff in each GSA region to review and validate the detailed IRIS information on the 44 buildings that we used to profile GSA's repair and alteration needs. There were problems with the completeness and accuracy of the IRIS data. As discussed in the report, we adjusted the data used in our analyses when we identified errors. On March 14, 2000, we received oral comments on a draft of this product. GSA's comments are discussed and evaluated in the report.

# Information on GSA's Buildings With the Highest Dollar Value of Repair and Alteration Needs as of September 30, 1999

Rank	Building name <sup>a</sup>	City	State	Estimated cost of unfunded repairs and alterations (in millions)	Number of work items	Historic status <sup>b</sup>	Gross square feet
1	Dwight D. Eisenhower	Washington	DC	\$186.7	14	Yes	691,783
2	Agriculture South <sup>c</sup>	Washington	DC	\$183.5	1	No	2,169,360
3	Commerce	Washington	DC	\$137.0	9	No	1,756,362
4	Richard Bolling FB	Kansas City	MO	\$99.0	11	PC	1,205,582
5	Justice Building	Washington	DC	\$88.5	25	Yes	1,052,827
6	FOB 3	Suitland	MD	\$86.6	15	No	576,058
7	FOB 8	Washington	DC	\$85.0	7	No	522,491
8	11000 Wilshire	Los Angeles	CA	\$74.9	30	No	543,709
9	AJ Celebrezze FB	Cleveland	OH	\$66.6	16	No	1,462,628
10	Interior	Washington	DC	\$65.0	2	Yes	1,217,477
11	GSA	Washington	DC	\$65.0	11	Yes	774,848
12	JW McCormack PO-CH	Boston	MA	\$63.3	6	No	627,996
13	Wilbur J Cohen Building	Washington	DC	\$62.9	25	No	1,055,935
14	Chet Holifield FB	Laguna Niguel	CA	\$56.3	33	No	949,249
15	Forrestal	Washington	DC	\$55.4	6	No	1,432,884
16	State	Washington	DC	\$55.1	3	No	2,422,055
17	WM. S. Moorhead FB	Pittsburgh	PA	\$50.9	20	No	785,127
18	Los Angeles CH	Los Angeles	CA	\$48.4	29	PC	770,958
19	BS Main Building	Calexico	CA	\$45.4	1	No	47,053
20	Edw Zorinsky FB	Omaha	NE	\$45.2	4	PC	415,567
21	Byron G. Rodgers FB-CH	Denver	CO	\$44.8	10	No	754,012
22	Los Angeles FB	Los Angeles	CA	\$43.5	22	No	1,111,356
23	GSA-ROB	Washington	DC	\$40.0	8	No	803,917
24	John C. Kluczynski FB	Chicago	IL	\$38.4	34	No	1,242,482
25	NYA 202	Washington	DC	\$37.6	9	No	172,451
26	Mary E Switzer Memorial	Washington	DC	\$36.9	14	PC	593,738
27	Emanuel Celler FB	New York-Kings	NY	\$36.3	18	No	379,498
28	Frank E. Moss CH	Salt Lake City	UT	\$34.1	10	Yes	210,603
29	IRS Center	Andover	MA	\$33.3	7	No	400,502
30	Jackson FB	Seattle	WA	\$31.2	31	No	822,855
31	John E. Moss FB-CH	Sacramento	CA	\$30.1	43	No	392,367
32	Kansas City CH	Kansas City	MO	\$30.0	9	PC	585,901
33	DFC Building 20	Lakewood	CO	\$28.6	5	PC	377,969
34	J Edgar Hoover Building	Washington	DC	\$28.3	6	No	2,146,322
35	Potter Stewart CH	Cincinnati	OH	\$27.5	28	PC	499,841
36	Richard B. Russell	Atlanta	GA	\$27.2	18	No	1,281,446
37	St. Louis FOB	St. Louis	MO	\$25.6	22	PC	471,024
38	Sen. Dennis Chavez FB	Albuquerque	NM	\$24.8	18	No	318,469
39	Albuquerque FB	Albuquerque	NM	\$23.9	15	No	288,150
40	Milwaukee FB-CH	Milwaukee	WI	\$23.7	7	Yes	500,247
41	Theodore Roosevelt	Washington	DC	\$23.7	10	No	768,530
42	John A Campbell CH	Mobile	AL	\$23.7	13	PC	117,462
43	Metzenbaum CH	Cleveland	OH	\$21.9	12	Yes	258,221
44	San Diego FB-CH	San Diego	CA	\$21.5	37	No	913,146
<b>TOTALS</b>				<b>\$2,357.3</b>	<b>674</b>		

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**Appendix II**  
**Information on GSA's Buildings With the Highest Dollar Value of Repair and Alteration**  
**Needs as of September 30, 1999**

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<sup>a</sup> Definitions for the Building Name abbreviations are: FB-Federal Building; FOB-Federal Office Building; PO-Post Office; CH-Courthouse; BS-Border Station; ROB-Regional Office Building.

<sup>b</sup> The abbreviation "PC" stands for Potential Candidate. These buildings meet the historic status criteria, such as age, but have not yet been officially designated as historic buildings.

<sup>c</sup> Agriculture South is a government-owned building in GSA's inventory. However, this building is unique in that the Department of Agriculture has been getting direct appropriations to do the repair and alterations work at this building. According to Agriculture's Director of Design and Construction Division, the estimated cost of repair and alterations for this building ranged from \$183.5 million to \$222 million. We chose to use the more conservative estimate for our analysis.

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